Avalanche Diode Tester
IPM No. 0T-0056

INTRODUCTION

Diodes being used in some of the new alternators are a special type. These special diodes are being used to help protect the electrical system from high voltage. These diodes are called transient suppressors or avalanche diodes. The diodes are also of the passivated die (chip) types; passivated means that the chip is sealed or protected and does not require a can or plastic moulded case.

These diodes are, however, covered with silicon rubber in the alternator bridge assembly to prevent gross shorts caused by water and dirt.

This tester is designed to test the normal rectification function of the diodes. In addition, the 0T-0056 enables you to test the avalanche function and to determine the voltage at which the avalanche occurs.

FUNCTION TEST

Approximately 20 Volts AC peak is to be applied to the diodes during this test. The voltage is adjusted in the "AC Volts" position of the selector switch. The voltage is adjusted by turning the knob marked "Volts Adjustment" until the meter reads 20.

LEAKAGE TEST

Approximately 20 Volts DC is to be appled to the diodes during this test. The voltage is adjusted in the "DC Volts" position of the selector switch. This is accomplished by turning the knob marked "Volts Adjustment", until the meter reads 20.

AVALANCHE VOLTAGE TEST

The meter is used to indicate a rapid increase of diode leakage. The DC voltage is increased until the leakage has been observed. The voltage is read by switching back to the "DC Volts" position of the selector switch.

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OPERATION

FUNCTION TEST

1. Attach three test leads to the front of the tester.
2. Plug tester into 115 VAC outlet; grounded 3 wire outlets should be used.
3. Turn Volts adjustment C.C.W. (to zero output).
4. Turn selector switch to AC Volts positon.
5. Turn power switch to on.
6. Attach red lead to the positive heat sink.
7. Attach black test lead to the negative heat sink.
8. Attach the yellow test lead to the junction of one pair of positive and negative diodes.
9. Adjust the Volts Adjustment to read 20 on the meter (the two L.E.D. lights marked "Open" will be lit when the tester is on and the voltage turned up. Disregard them except when testing with the selector switch in the "Function Test" position).
10. Switch to Function Test - all L.E.D. lights should be out - if any are lit then they are showing you the failure mode of the diodes., i.e. open or short.
11. Move the yellow lead to the next diode pair until each pair is tested.

LEAKAGE TEST:

1. After performing the function test be sure the selector switch is turned to the DC Volts position.
2. The volts adjustment is adjusted properly when the meter reads 20.
3. Switch the selector switch to (-) leakage position and read the meter.
4. Switch the selector switch to (+) leakage position and read the meter.
5. Move the yellow lead to the next diode pair until each pair is tested.

AVALANCHE TEST:

1. After performing the leakage test the voltage can be varied with the Volts Adjustment until the leakage current rapidly increases, indicating that the diode is beginning to avalanche.
2. Then turn the selector switch back to DC Volts and read the meter for the voltage level.

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The meter is used to indicate a rapid increase of diode leakage. The DC voltage is increased until the leakage has been observed. The voltage is read by switching back to the "DC Volts" position of the selector switch.

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11. Move the yellow lead to the next diode pair until each pair is tested.

LEAKAGE TEST:

1. After performing the function test be sure the selector switch is turned to the DC Volts position.
2. The volts adjustment is adjusted properly when the meter reads 20.
3. Switch the selector switch to (-) leakage position and read the meter.
4. Switch the selector switch to (+) leakage position and read the meter.
5. Move the yellow lead to the next diode pair until each pair is tested.

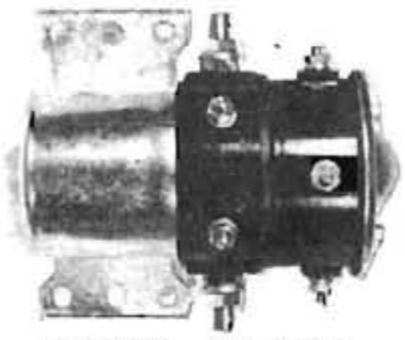
AVALANCHE TEST:

1. After performing the leakage test the voltage can be varied with the Volts Adjustment until the leakage current rapidly increases, indicating that the diode is beginning to avalanche.
2. Then turn the selector switch back to DC Volts and read the meter for the voltage level.

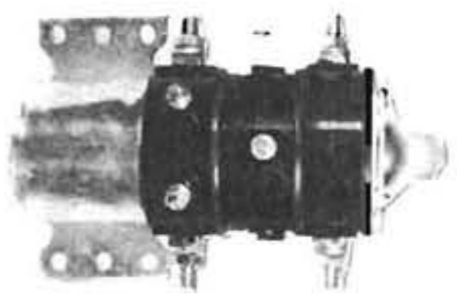
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IPM No. 2A-6037
Replaces OEM No. 1119865, 66



IPM No. 2A-6038
Replaces OEM No. 1119845



IPM No. 2A-6039
Replaces OEM No. 1119844

Delco 10si Chrome Alternator Kit

IPM No. 1A-0721
10si Chrome Alternator Kit w/Single Groove Pulley



Note: For a kit with a double groove pulley order **IPM No. 1A-0712**



IPM No. 2A-2619
Metric Shim, 1MM thick (.040")
Designed for use with late GM passenger car starter. Replaces OEM No. 14028933.



IPM No. 2A-2620
Starter Shim, .015" Thick
For 10MT, 25MT and 27MT starters with 3-hole flange mount drive end housings. (IPM No. 2A-2100 and 2A-2101) where required. Lester No. 6301, 6302, 6303, 6305.

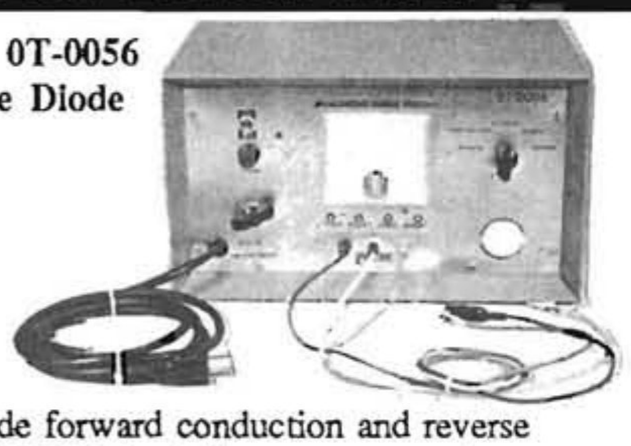


IPM No. 2A-9166
Repair Kit, 24 Volt
For 40MT Type 400 and 450 starters. Kit includes all parts shown, including late style wide brushes, oil wicks, plugs and bushings. OEM Starter No. 1114805, 929, 1990279

IPM No. 2A-9165
Repair Kit, 12 Volt
For 40MT Type 400 and 450 starters. Kit includes all parts shown, including late style wide brushes, oil wicks, plugs and bushings. OEM Starter No. 1114802, 825, 1990208, etc.

TEST EQUIPMENT

IPM No. 0T-0056
Avalanche Diode Tester



Tests diode forward conduction and reverse leakage, LED lights indicate opens or short. Checks the reverse micro amp leakage at 20 volts DC.

Starter Kit to Replace Delco 5MT

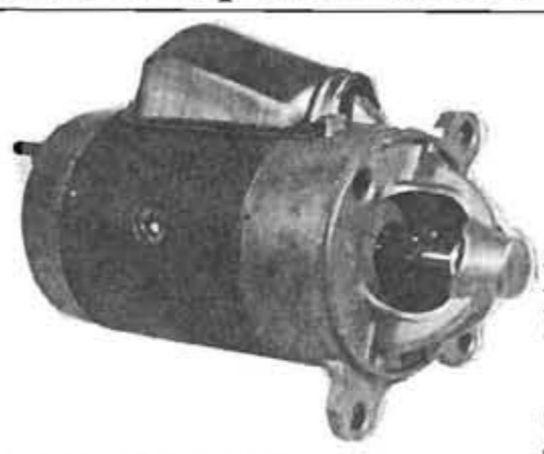
Starter Kits to Replace Latest Fords

IPM Kits Are Designed For Fast, Economical, Complete Assembly At Your Shop

OEM Style 5MT Kits



IPM has a full line of OEM Style Kits. All the various lengths (4-1/8", 4-5/8", 5", 5-1/8", 5-1/2") are available, and each kit comes with the field housing preassembled. Give IPM a call and let us help you find the kit that fills your need.



IPM No. 2B-0721
For 6 cylinder -230 C.I.D.
1982-86 Mustang - Capri, Thunderbird - Cougar, LTD - Marquis. Ford truck Bronco (w/auto trans.)
8 cylinder - 302 C.I.D.
1982-86 Mustang - Capri, Thunderbird - Cougar, LTD - Marquis. Ford truck - Bronco (w/auto trans.)

IPM No. 2B-0722
For 4 cylinder -140 C.I.D
1981-83 Mustang - Capri, Granada -Monarch, Thunderbird -Cougar, Fairmont - Zephyr, LTD - Marquis
1984-86 Mustang - Capri, Thunderbird - Cougar, LTD - Marquis, 1983-86 Ranger, 1985-86 Aerostar.

IPM No. 2B-0723
For 4 cylinder - 98 C.I.D.
1981-85 EXP - LN7 Escort - Lynx.

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